AirCheck reduces Wi-Fi troubleshooting incidents from hours to minutes at Eastside Catholic School.

At a Glance

Customer:
Eastside Catholic School

Industry:
Education

Location:
Sammamish, Washington

Network type:
Wired/Wireless Ethernet LAN

Challenge:
Time-consuming troubleshooting of Wi-Fi connectivity, interference, and other issues for students and staff.

Results:
The AirCheck has reduced the time to resolve problems from hours of guessing to focusing on the issue within minutes, saving up to two workweeks per year.

Products:
AirCheck™ Wi-Fi Tester

Set on fifty scenic acres east of Seattle, Washington, the Eastside Catholic School educates its 860 students in a state-of-the-art 160,000 square foot facility. Built in 2008, the classroom and science labs incorporate the latest technologies. The LAN that supports these technologies is built around HP ProCurve switches and Meru access points. More than 250 laptops connect via Wi-Fi.

Having wireless access is very popular with both the students and staff at Eastside Catholic School. Yet, according to Brad Pritchett, the school's Information Technology Manager: "Wireless is a challenge. You're never quite sure what's happening with Wi-Fi." Problems he currently encounters include interference, users not being able to connect, weak signals, and intermittent access. Brad used to lug around his laptop and use specialized Wi-Fi software to troubleshoot. But these days Brad can put the Fluke Networks AirCheck Wi-Fi Tester in his pocket and go.

"The AirCheck is much smaller and more convenient to carry around and much easier to use. The user interface is really friendly and intuitive. You can pick it up and with five minutes of instruction start using it."

> ***"The first day I had AirCheck, I used it to trouble-shoot a complaint in the Commons. Every time the kids put stuff in the micro-wave, it knocked out their wireless connections. The AirCheck did a nice job of showing me how much noise there was on top of the signal."***
>
> – Brad Prichett
> Inrormation Technology Manager

Detect Interference

"The first day I had AirCheck, I used it to troubleshoot a complaint in the Commons. Every time the kids put stuff in the microwave, it knocked out their wireless connections. The AirCheck did a nice job of showing me how much noise there was on top of the signal," explains Brad.

When Eastside Catholic School's network was first installed, all of the wireless access points were mounted above the ceiling tiles to conceal the units from view and to prevent the temptation of students tampering with them. That meant that Brad and his staff didn't know the precise location of the access points. With the AirCheck in hand, they no longer have to haul around a ladder and remove ceiling tiles to hunt down the units – a particularly time-consuming job in such a large facility. "It's really easy with the 'Locate' feature. I can just walk right up to the access points and connect. It's been a big time saver." Brad has now mapped all the Wi-Fi access points throughout the facility using AirCheck.

One of the main trouble calls Brad responds to is not being able to connect. "There was one conference room that everyone complained about," recalls Brad. Using the Ping Test, he could see there was plenty of bandwidth at that spot and the signal-to-noise ratio looked fine, but suddenly

AirCheck Manager software generats PDF reports

AirCheck allows Brad to quickly pinpoint the location of Access Points installed above the ceiling tiles

he could see a high level of interference. He walked around to the other side of the wall to discover a microwave oven in a kitchenette. “In less than five minutes I’d discovered the problem.” Putting radio frequency shielding in the common wall is one option to solve the problem, but that’s expensive and doesn’t guarantee interference-free wireless service. So they have chosen a more economical and natural route for a school: educating users to minimize microwave use when the conference room is in use.

Brad uses AirCheck Manager software loaded on his laptop to download sessions recorded with AirCheck. He can generate a PDF report that includes AirCheck configuration, access points, channel usage, and connection details. “If one of my techs takes the AirCheck out, I can go back and review his entire session on my laptop. I don’t have to listen to the anecdotal retelling of the incident or rely on his memory.” Later, if there are problems in the same area, Brad has history of past performance.

“The AirCheck has reduced the time to resolve problems from several hours of uncertain guessing to focusing in within minutes to the specific issue. I can immediately determine if something has changed in the wireless environment.

- Has the signal strength changed in a location?
- Is there interference in the area?
- What is the SNR during a ping?
- What is the error rate during the ping?
- Can the client associate?
- Is the client successfully roaming across an area?

These tests take only minutes to run and can then be printed out and shared with contractors and vendors. We could easily save one or two full workweeks over the course of the year.”

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About Fluke Networks

Fluke Networks provides innovative solutions for the installation and certification, testing, monitoring and analysis of copper, fiber and wireless networks used by enterprises and telecommunication carriers. The company’s comprehensive line of Network SuperVision™ Solutions provide network installers, owners, and maintainers with superior vision, combining speed, accuracy and ease of use to optimize network performance. Headquartered in Everett, Washington, the company distributes its products in more than 50 countries.

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